1   CLAIMS

2

3   We claim:

4   1. A system for applying sound to a neurological process amenable to treatment or

5   augmentation by sound, the system comprising:

6   a first device, and

7   a second device communicating over a network to the first device, wherein the

8   second device is configured to evaluate and treat the neurological deficiency.

9

10   2. The system of Claim 1, wherein the second device treats the neurological deficiency

11   according to a treatment protocol.

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13   3. The system of claim 2, wherein the first device sends a treatment protocol to the

14   second device.

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16   4. The system of Claim 3, further comprising a database readable by the first device,

17   wherein the database comprises data regarding the neurological deficiency.

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19   5. The system of Claim 4, wherein the first device computes the treatment protocol with

20   a computation, and wherein the computation comprises the data.

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22   6. The system of Claim 3, further comprising a third device communicating over a

23   network to the first device.

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2   7. The system of Claim 6, wherein the third device can control the treatment protocol.

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4   8. A system for applying sound to a neurological process amenable to treatment or

5   augmentation by sound, the system comprising:

6   a first device configured to access a database comprising data, and

7   a second device configured to network with the first device, wherein the second

8   device is configured to create therapy tones, and wherein the therapy tones are

9   determined from a function comprising the data.

10

11   9. A first device for applying sound to a neurological process amenable to treatment or

12   augmentation by sound, the system comprising, the device comprising:

13   a data transfer device, wherein the data transfer device is configured to

14   communicate with a second device, and

15   an acoustic transducer,

16   wherein the data transfer device receives the therapeutic protocol from the second

17   device.

18

19   10. A device for delivering sound to a user, the device comprising:

20   an acoustic transducer configured to deliver the sound,

21   a biometric sensor configured to receive feedback from the user.

22

23   11. The device of Claim 10, further comprising an earpiece.

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2   12. The device of Claim 11, wherein the biometric sensor comprises an electric sensor

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4   13. The device of Claim 11, Wherein the biometric sensor comprises an optical sensor.

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6   14. The device of Claim 11, Wherein the biometric sensor comprises a pressure sensor.

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8   15. The device of Claim 11, further comprising an ambient sensor.

9

10 16. The device of Claim 11, further comprising an ambient channel.

11

12 17. A device for transmission and reception of signals, comprising:

13   an earpiece comprising an acoustic transducer and an ambient sensor.

14

15 18. The device of Claim 17, further comprising an ambient channel.

16

17 19. A method for applying sound to a neurological process amenable to treatment or

18 augmentation by sound, the method comprising:

19   transferring a treatment protocol from a remote device to a local device

20 comprising an acoustic transducer, and

21   performing the treatment protocol on the local device.

22

1   20. The method of Claim 19, wherein the treatment protocol is computed by the remote

2   device.

3

4   21. The method of Claim 19, wherein the treatment protocol is the result of a

5   computation comprising data from a database.

6

7   22. The method of Claim 19, wherein the treatment protocol comprises a tone.

8

9   23. The method of Claim 19, wherein the treatment protocol comprises an amplitude.

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11   24. The method of Claim 19, wherein the treatment protocol comprises a schedule.

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13   25. A method for applying sound to a neurological process amenable to treatment or

14   augmentation by sound, the method comprising: applying therapy for the symptoms

15   using a portable device, and

16   diagnosing the symptoms using the portable device.

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18   26. The method of Claim 25, wherein the portable device weighs less than about 2

19   pounds.

20

21   27. The method of Claim 26, wherein the portable device weighs less than about 1

22   pound.

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1   28. The method of Claim 25, wherein diagnosing comprises receiving user feedback

2   during therapy.

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4   29. The method of Claim 28, wherein user feedback comprises a biometric.

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6   30. The method of Claim 28, wherein user feedback comprises a qualitative user

7   response.

8

9   31. The method of Claim 25, wherein applying therapy comprises broadcasting a tone.

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11 32. A system for applying sound to a neurological process amenable to treatment or

12 augmentation by sound, the system comprising:

13   a first device configured to emit a first sound to a user, and wherein the first

14 device senses electrical signals of the user's brain.

15

16 33. The system of Claim 32, wherein the electrical signals are used to determine a

17 second sound to be emitted to the user.

18

19 34. A method for applying sound to a neurological process for a user, wherein the

20 neurological process is amenable to treatment or augmentation by sound, the method

21 comprising:

22   performing a sensory threshold test with a first device on the user, wherein the

23 sensory threshold test produces results, and

1   applying sound with the first device, wherein the sound is based on the results of

2 the sensory threshold test.

3

4 35. A method for applying sound to a neurological process for a user, wherein the

5 neurological process is amenable to treatment or augmentation by sound, the method

6 comprising:

7   emitting sound with a first device to the user,

8   sensing a biometric from the user,

9   displaying the biometric to the user.

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11 36. The method of Claim 35, wherein the biometric comprises a brain signal.

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13 37. The method of Claim 35, wherein the biometric comprises a heart rate.

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15 38. The method of Claim 35, wherein displaying comprises substantially constant

16 display of the biometric to the user.

17

18 39. A system for applying sound to a neurological process amenable to treatment or

19 augmentation by sound, the system comprising:

20   a first device configured to emit a first sound to a user, wherein the first device

21 senses electrical signals of the user's brain, and wherein the electrical signals are used to

22 determine a second sound to be emitted to the user.

23

1   40. A method for applying sound to a neurological process for a user, wherein the

2   neurological process is amenable to treatment or augmentation by sound, the method

3   comprising:

4   emitting sound to the user,

5   retrieving biometric data from the user, and

6   coupling temporal data with the biometric data.

7

8   41. The method of Claim 40, wherein the retrieving comprises retrieving by a first

9   device, and wherein coupling comprises coupling by the first device.

10

11   42. A system for applying sound to a neurological process amenable to treatment or

12   augmentation by sound, the system comprising:

13   a first device configured to emit a first sound to a user, wherein the first device

14   comprises a sound generating processing unit.

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16   43. The system of Claim 42, wherein the sound generating processing unit is configured

17   for efficient power consumption.

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19   44. The system of Claim 42, wherein the first device comprises more than one

20   processing unit, and wherein the sound generating processing unit is configured to

21   consume less power than the other processing units.

22

1   45. A method for applying sound to a neurological process for a user, wherein the

2   neurological process is amenable to treatment or augmentation by sound, the method

3   comprising:

4   generating sound, wherein generating comprises sound generating processing

5   unit, and

6   emitting sound to the user.

7

8   46. The method of Claim 45, wherein the sound generating processing unit is configured

9   for efficient power consumption.

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